since published in the 'Annals of Natural History,' by whom also some observations were made on the geographical distribution of insects in North America as compared with New Zealand.

May 4th.—W. Spence, Esq., F.R.S., Vice-President, in the Chair.

The Secretary announced that the Address delivered by the President at the last anniversary meeting had been printed and was ready for delivery.

Mr. Moore, jun., exhibited some foreign beans attacked by a larva which had eaten through them, spinning its web for a passage.

Mr. S. Stevens exhibited a specimen of *Deilephila lineata*, taken at Hammersmith on the 16th of last April; also a specimen of *Cleora pictaria*, found on palings at Dartford Heath on the 12th of last April. It was also stated that specimens of *D. lineata* had been taken at Langport, Somersetshire, and by a nurseryman at Bristol in the past month of May, as well as a specimen of *D. Celerio* at Manchester.

He likewise exhibited the larvæ of *Polia tincta* and *Tryphæna fimbria*, both found on the birch at Birchwood at the beginning of May.

A memoir by W. W. Saunders, Esq., containing descriptions of some new species of Australian *Chrysomelidæ*, was read.

June 1st.—Thomas Marshall, Esq., Vice-President, in the Chair.

Mr. S. Stevens exhibited a second specimen of *Deilephila lineata*, taken at Hammersmith a short time previously; also several cases of a tough leathery texture, formed by a lepidopterous larva which eats through the base of the horn of the two-horned rhinoceros, from Southern Africa.

He also exhibited some twigs of oak from Darenth, Kent, completely defoliated by the small green *Tortrix viridana*, which was extraordinarily abundant this season.

Mr. Ingpen exhibited a case of insects from Adelaide, including various rare and interesting *Coleoptera*, *Psychopsis mimica*, &c.

Mr. Harrington exhibited various splendid *Coleoptera* from the Himalayan range of India, including the male of *Cheirotonus Macleaii*, Hope, &c.

Mr. Moore, jun., exhibited a cocoon of *Eriogaster lanestris* of a globular form, which on being opened was found to contain two male chrysalides; and Mr. Weir mentioned that he had observed the same circumstance several times in the same species, as had also Mr. Longley.

Mr. Westwood exhibited specimens of a minute species of the Dipterous genus *Phytomyza*, the larva of which mines within the leaves of the holly, causing large unsightly blotches upon them, and which had occurred in great profusion this spring. He had also reared a small parasitic Ichneumon from the leaves, which keeps the *Phytomyza* in check. He also exhibited specimens illustrating the history of the minute moth *Argyromiges Blancardella*, the larva of which mines the leaves of the evergreen oak, the chrysalis pushing itself half through a hole which it forms in the leaf in order to effect

its escape. He had also reared the parasitic Ichneumon attached to this species. He also exhibited specimens of the *Coccus manniparus* of Klug, brought from Arabia by Ehrenberg, as well as some manna brought from Mount Tabor by Lieut. Wellstead; and exhibited specimens of the *Womela*, an analogous secretion formed upon the under sides of the leaves of the various species of *Eucalyptus* in New South Wales by a minute species of *Psylla*, numbers of which were found secreted amongst the *Womela*. Mr. Westwood had been informed by Mr. Gould, that for several months last year this secretion formed a large portion of the food of the natives. The insects are attacked by a minute and very beautiful parasite of the genus *Encyrtus*. Mr. Harrington also stated that the genus *Eurymela* produces a kind of manna on the *Eucalypti*, and which falls to the ground in the shape of small white crystals.

A letter was read from W. Spence, Esq., inclosing an extract from a letter from his son R. Spence, Esq., giving an account of the discovery, by Professor Schiodte, of as many as twenty species of blind insects of different orders and genera, all new, in the caves of Styria; so that it would appear that there exists a subterranean fauna of blind animals. Ten of the insects were Coleopterous. It was mentioned that a Carabideous genus without eyes has lately been described by the German naturalists, and that various blind insects and spiders had been found in the mammoth-caves in Kentucky. (See Dr. Erichson's 'Bericht' for 1844.)

An extract from a letter addressed by Captain Boys to Mr. Westwood was read, giving an account of the habits of some Indian species of ants, white ants, and other insects:—

"On our way down towards Sukker, I observed what I consider an undescribed species of *Termes*, of an unusually large size, of which I made a note. The workers alone are nearly half an inch long. I never saw such monsters. The nest is peculiar. From the surface of the plain on which I observed these nests, which are conical in form, little hillocks of about six inches high were seen at various distances from each other, from five feet to twenty apart. These were composed of grains of earth worked up to about the size of millet seeds, and were quite loose, and might be taken up in handfuls. Inside each of these heaps, a raised structure, branching off in three or four short arms, was to be found, with an internal passage from the surface of the earth to each branch: but how the creatures contrived to cover the whole without appearing outside is left to conjecture. The apex of each cone was about three-quarters of an inch from the arborescent-looking structure inside. The latter was also composed of small pellets of earth, but half as fine as the superincumbent grains, and were moreover glued firmly to each other. I removed the earth from the outside of several nests, and blew away all the pellets, leaving only the stump sticking erect from the earth. At the top of the latter and at the end of each branch was an orifice, —the continuation of the internal canal. In about ten minutes hosts of the inhabitant ants came up with earth freshly manipulated, and began pouring their pellets out of each orifice: the latter of course

were carried by their jaws. I sat observing them for about an hour, when I marked the spot and returned to camp. In the afternoon, on my return to it, all the stumps were again covered over.

"The red ant you mention as having been described by Colonel Sykes is, I think, familiar to me. I allude to an ant of about four lines long which builds a beautiful nest in trees, mostly in a mango-tree. The nest is composed internally of a web much resembling that of the earth-spider, but much closer, and infinitely stronger in texture. The outer portion of the nest is a thatch of leaves, brought together by main force, and joined one to another by the foremen-tioned web. I have seen nests almost as round as footballs, and quite as large. The mango-tree has its leaves long and oval, similar in shape to each segment of the casing in a tennis-ball, and the end of each branch bears a bunch of leaves (in a circle) to the number of eight or ten: however, these leaves are depressed and brought to-gether in an admirable manner. The web bears writing on with facility, and the insect in the winged state is green. The bite of the worker is severe; and the scent of the formic acid, when the nest is interfered with, is so strong as to be almost insupportable.

"There is also a black ant which forms its nest in trees, in the Himalayas above Kimaon, but I have not studied their habits. The nest looks like an agglomeration of sawdust.

"Of *locusts* there are undoubtedly two species, exceedingly distinct, and which migrate in swarms, doing intense damage:—one, a pink underwinged kind with fuscous patches on the upper wings; the other with yellow underwings, and in other respects nearly similar, except that instead of being tawny it is of bright yellow, and which is far more common than the former. Again, there are three other species which are not so abundant, but still do much damage. These I have only observed in loose flocks, and have never taken them in the larva state. The whole country has suffered severely from the ravages committed by the two first species noticed, during the greater por-tion of last year and the latter end of 1843. The *pink underwing* species were so numerous in the terrai at the foot of the Himalayas near Bennourie, on the road to Almorah, that the branches of shrubs and trees on which they settled were completely hidden by them, and twigs a finger thick broken down by their weight alone. The ground one brickdust red. I observed these wretches in flights ex-tending for miles, so thick as absolutely to obscure the sun, and cause some difficulty to my palanquin-bearers in getting through them, as at every step they rose in swarms, striking and flying against the men's faces in every direction. This was in the middle of October in 1843. Several large flights of the yellow kind I had observed a month or six weeks previously at Almorah. Of the pink description the colour is more or less intense according to age, or quantity of rain they may have been exposed to. In fresh or lately matured insects the underwings are a very pale pink, and the outer ones not much darker. In old and tough specimens these latter organs become a dirty claret and water colour, inclining to Indian red. Of the *yellow kind* I obtained the larvæ in abundance at Nus-

seerabad in the latter end of July 1844, though I had never previously seen the insect in this state during nineteen years' sojourn in India. They were as numerous as their parents, swarming on every bush, and crawling all over the ground for miles among the hills near the above-named cantonment (these hills are a portion of the Aravalli range which rise near Delhi). The larva is very handsomely marked with orange-yellow and black; the face, if I may so term it, is bright orange-yellow, the portion behind and below the eyes a dark maroon. Legs (posterior ones) bright yellow banded with black; winglets light yellow, faintly striped with dusky connected spots. Antennæ black, with the two first joints yellow. But nothing but a correct delineation, or the insect itself, can give a just idea of its handsome markings.

"The two specimens now forwarded of a new species of *Colias*, together on one card, are, I am strongly inclined to think, different only in sex; and I consider the white as the male, having observed it hovering over the red. And besides this, I have been led to the conclusion by the fact, that for one red I took at least five white. The tree jungle about the place is called the Peeloo: its technical name is unknown to me; but the wood is held in high esteem by the natives for the purpose of making tooth-brushes.

"I have two species of *Celyphus* from Mhow in Malwa; one a bright bottle-green, the other darkish brown: the smaller species is about three lines long, the other a line longer. They resemble some of the *Fungicolæ*, but are rather longer in shape. The hard case (beneath which the wings are distinctly visible and extrude over the abdomen) is very like what obtains in many species of *Scutelleræ*."

A letter was read from Mr. Boreham, suggesting that the colours and forms of larvæ might possibly be preserved by inclosing them in glass tubes hermetically sealed from which the air had been extracted.

Mr. White read the descriptions of several new exotic *Hemiptera*, since published elsewhere, and alluded to the alteration produced by desiccation in metallic coloured insects, whence a species of *Callidea*, described under the name of *purpurea* by Mr. Westwood, was, when alive, of a metallic green. Spirits of wine, warm water, or æther were equally efficacious in restoring these colours after death. Mr. White also stated that Mr. Walker was engaged upon a work on the British *Aphides*, to be published by subscription.

MISCELLANEOUS.

MR. CUMING'S COLLECTION OF SHELLS.

We have learnt with much gratification that the Trustees of the British Museum have resolved to recommend to Government the purchase of the well-known conchological collection of Hugh Cuming, Esq., F.L.S. We trust that no motives of mistaken economy may operate to frustrate this resolution. Its import-